

July 10, 2009

California Energy Commission
Attn: Clare Laufenburg Gallardo
claufenb@energy.state.ca.us

Re: Renewable Energy Transmission Initiative Phase 2A Report

Dear Ms. Laufenburg Gallardo,

Thank you for the opportunity to comment on the RETI process. I first heard of the RETI planning process only in April. I was at a public scoping meeting, where representatives of the TANC transmission line proposal repeatedly cited the RETI 1B study as evidence of significant renewable resources accessible by that project. While I understand that it is not the purpose of RETI to endorse any particular transmission proposal, I want to point out that, for most California residents affected by new transmission line development, awareness of RETI's existence will come with project notification.

I hope my perspective will be useful to the RETI process in the future. While most of my remarks are in regard to the North and Northeast transmission lines, I believe some may be generally applicable to other RETI line segments.

The costs, both environmental and economic, of building the two lines may have been understated, and the benefits overstated, in the 1B and 2A Studies so far. This may be the result of RETI's dependence on other parties, which may have no incentive to accurately estimate development costs of either CREZ resources or Transmission lines, for information.

Additionally, since both the Northern and Northeastern lines are currently shown as requiring new right-of-ways, the recent adverse public reaction to the TANC project may also indicate much higher costs in acquiring any new ROW's, if obtainable at all.

I can't find any evidence that existing transmission capacity does not already exist to access the very limited CREZ sites north of the San Francisco Bay Area, and for imports from other states, should they be identifiable and accessible to California utilities at some point in the future. So while various utilities may have programs for interstate transmission line development, the current collector and trunk line designations of the Northern and Northeast transmission lines seem inconsistent with the RETI process.

The Lassen A and Round mountain B CREZs are the lowest ranking in the 2A analysis. Likely levels of development at these sites, if any occurs, would not require major collector/trunk lines. The only CREZ appearing likely to meet economic development standards north of the San Francisco Bay Area is Medicine Lake Highlands geothermal site, designated as Round Mountain A. This proposal has been the subject of environmental litigation for many years, and is Sacred to several Native American Tribes, so the positive CREZ environmental rating given by RETI 2A is questionable.

I understand that the North DC transmission line will not be utilized to access any Northern California CREZ's. Its capacity far exceeds the requirements of the unranked renewable resources of the Pacific Northwest. It does not therefore, appear to be primarily a "collector" line as defined by RETI.

The Northeast trunk line, as described in RETI 1B and 2A, has no defined purpose. It is not shown to access Medicine lake. The other CREZs' actual potential does not require lines of any where near its capacity, even if they are developed. While RETI 2A notes that "...it is Widely expected..." to have further connections to the east, it presently deserves the "Power Line To Nowhere" epithet that it has acquired.

Consistent with the "least regrets" RETI planning principle, further interstate transmission line development through Northern California would not be useful. Such lines could impede the central objective of RETI, the reduction of CO₂ pollution produced in the generation, transmission, and delivery, of energy consumed in California. Cost estimates for these lines are in the billions of dollars. CO₂ pollution will be a secondary consideration for interstate transmission line operators, once saddled with the need to recover the capital investment of new transmission lines.

CO₂ emission reductions are best accomplished by reducing fossil fuel produced electricity imports to California, which will also effectively increase available transmission line capacity for out of state renewable resources, when and if they become available.

Even for the RETI reference fuel, natural gas, the benefits of generation as close as possible to site of use, and avoiding long range transmission, is clear. Carbon intensity of electricity is effectively raised by transmission line losses. And huge environmental costs, both in CO₂ pollution and otherwise, are avoided, along with transmission lines, by siting generation near demand.

California currently imports almost 30% of total electricity consumption. Large reductions in CO₂ pollution could be gained simply by getting present and future fossil fuel produced electricity generated by natural gas fueled plants as close as practicable to high-demand California urban areas. Ending Coal generated Electricity imports entirely would have far greater benefits. I can not see how increasing interstate transmission capacity, by building new transmission lines, is anything but detrimental in this context.

Alternatives to developing additional interstate lines include development of distributed renewables, and Southern California CREZ renewables. Both reduce the need for imported fossil fuel produced electricity, and are addressed in the RETI study. However, I think that increased energy conservation efforts, and the substitution of natural gas, both in end use (combustion) and for in-state electricity generation, as substitutes for for transmission line electricity, are some examples of alternatives which RETI has not addressed.

While these considerations seem to have been largely outside the RETI process, total demand and net short are both subject to reduction by these and other factors, so they should be re-examined.

In terms of conservation improvements, California may experience gains exceeding past incremental improvements. The widespread introduction of time-of use pricing, with consumers informed of real-time electricity costs of various uses, will encourage significant reductions in electricity consumption, soon after implementation. The greatest conservation gains available, in terms of residential use, coincide with the summer peak demand load driver, air conditioning. And the reality of fixed rate pricing has inevitably meant that consumers simply have not been given incentives to conserve, as they pay the same rate for the most expensive to deliver KWH of electricity as the cheapest.

The problem is not that consumers are not "smart", as the name given the new meter programs suggest. The problem is that utilities, using obsolete meter technology and rates, have not given

consumers the pricing information required to produce a more efficient energy market.

RETI IB, in methodology and assumptions, uses a Reference Case natural gas price forecast of between \$9/M Btu and \$11/M Btu over the 2009-2020 period. As of today, current spot prices are under \$3.50/M Btu. And futures markets reflect trading at well below the reference price until at least 2015. So it appears RETI is not using current prices in its methodology.

These low gas prices not only reduce the likelihood of development of higher cost CREZ's, such as those in Northern California, they also indicate decreased future electricity demand in California. As of last month, the cost differential of using electricity rather than natural gas in a home water heater in a Northern California PG&E supplied home exceeds 300%. Similar very large cost differentials exist throughout the State. Consumers may continue to face the dilemma of fluctuating gas prices, relative to the more stable regulated electricity rates. But heating tasks, now done by electricity, will increasingly be replaced by natural gas in home and business applications, as energy buyers become aware of the price differential. Since direct combustion of natural gas exceeds the efficiency of gas-to-electricity-to resistance heat, the expanded use of natural gas can only be seen as beneficial in reducing CO2 pollution, at least until a carbon-free electrical grid is in sight.

Even higher efficiency gas fueled conventional, and perhaps fuel cell, co-generation, will expand rapidly in California, if this price differential remains, also reducing electricity transmission demand, while providing benefits in reducing CO2 pollution. As mentioned above, future natural gas fueled electricity generation near California high-demand areas, will do the same.

So I think the RETI assumptions of increasing California total electricity demand, and the net short calculations, have not been adjusted for current and future, energy market conditions. While energy demand probably will increase in the near future, electricity transmission demand probably will not. This may eliminate the need for more marginal proposals, such as the North and Northeast transmission lines.

Thank you,

Ed Marek

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